simply to achieve sufficient levels of satisfaction. The author of this book calls us to base decisions and thereby our standard for satisfaction increasingly on the strength of sound evidence so that we will generate greater health and happiness for individuals and populations.

Gray seeks to up the ante and definitively put the health care industry on the road of rational optimization. For him, there is less satisfaction to be found in opinion-based decisions than in having the right facts at hand. However one may feel about this assertion and the "evidence-based medicine movement," this book contains sufficient wisdom to purchase for repeated reading. Pound for pound, it is a good buy. The distinct strengths of this work include its clarity of expression and the many threads of humor and wisdom. In addition, I found the book's outline format to be especially useful for quick reference, although some readers may find the format distracting.

The author is the Director of Research and Development of Britain's National Health Service, Anglia and Oxford Region. In dedicating the book, he admits to the benefits of optimism and irony. This is fitting inasmuch as his aim is to help decision makers carefully appraise evidence in reaching decisions relating to the health care of *both* individual patients and populations. He is right to make such a complex call, but delivering on the aspiration is not a task for the meek. Unfortunately, some of the prescriptions are complex to the point of being confusing.

The book goes beyond the "evidence-based medicine movement" for clinical decision making and seeks to integrate it as the basic approach for running all health care systems and organizations. To accomplish such an objective, the author lays out a number of thoughtful sets of considerations, such as how one does the right things right. He sketches out the dimensions of health services, reviews issues of screening and testing, summarizes the various forms of research evidence, and delineates issues relating to outcomes of systems. This last item is given substantial attention so that one can appreciate the dimensions of outcomes, equity, safety, effectiveness, and patient satisfaction. He seeks to illustrate evidence-based purchasing and policy making and the nature of the skills needed to manage evidence. He ties these health system management perspectives to the clinical realm and illustrates the growing sources of relevant information on which such a health care system can draw for support (see the website for an Evidence-Based Healthcare Toolbox, http://www.his.ox.ac.uk/ebh.html).

This book is a superb choice for house-staff education and for any surgeon who has not reflected much on organizations or health systems management or who has been unaware of developments in evidence-based medicine. In general, this movement has attracted far too few surgeons. To complete the picture, some companion references relating to emerging information technology are needed. The author is curiously silent on the absolutely crucial role computer-based health records must play if such a robust data-driven care system is ever to be truly manifest. Few innovations could take him further than "just-in-time knowledge" servers to assure process management.

Vascular surgeons are among the vanguard of surgeons moving toward more precise performance measurement and reporting. This book will be useful to those who wish a quick, efficient introduction to the complex but important world of greater accountability to which we are clearly headed. Whether we will become a new and better species of professional is not yet clear. But books like this make it abundantly clear that we cannot continue to dismiss our ignorance on ways to improve our work.

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Atlas of cardiovascular monitoring

Jonathan B. Mark; New York City; 1998; Churchill Livingstone; 377 pages; $75.00.

The use of cardiovascular monitoring in patients who are critically ill has recently been under intense scrutiny. In a recent, prospective, observational multicenter study of patients who were critically ill and monitored with right heart artery catheters, for example, improvements in outcome could not be shown in spite of increased use of hospital resources.[1] Another study showed that physicians frequently have major deficits in the knowledge base required to understand the information obtained from advanced hemodynamic monitoring.[2] Armed with this information, the use of advanced cardiovascular monitoring is being challenged and is decreasing in many institutions. Nevertheless, there is some support from the literature that subsets of patients, unlikely to be identified in large studies with diverse patient types, may benefit from cardiovascular monitoring. This opinion has been reflected in a detailed referenced consensus statement of the Society of Critical Care Medicine.[3] Because of continued impetus to use advanced cardiovascular monitoring in smaller numbers of patients in the face of decreasing relevant experience and knowledge base, a textbook showing and explaining both routine and advanced hemodynamic and electrocardiographic patterns is a necessity for practicing health care personnel.

The text *Atlas of cardiovascular monitoring*, by Jonathan B. Mark, consists of a collection of pressure traces, electrocardiogram strips, and physiologic diagrams that are appropriate for use by specialists and nonspecialists involved in the care of patients with advanced cardiovascular monitoring. One might question the use of the term *atlas* in the title because the content goes beyond the scope of a "bound volume of tables, charts, or maps illustrating a particular subject."[4] Accordingly, in addition to providing a wealth of figures and diagrams, the text provides guidance in the interpretation of these physiologic signals. For example, a discussion of the effects of a fluid challenge went beyond simple illustrations of changes in intracardiac pressures by including a clearly written explanation and figures of the compliance characteristics of the

left ventricle and a discussion of the effects of left ventricular pressure on the accumulation of fluid in the lung.

Physicians involved in the bedside care of patients with cardiovascular monitoring will appreciate the detailed explanations in this text to questions commonly arising from house officers, nurses, and other medical personnel. Sophisticated answers to the following questions are provided: Why do intraarterial pressures differ from cuff pressures? Why is the wedge pressure measured during diastole, and when is a mean wedge pressure useful? How does one interpret ST-segment elevation or depression during individual lead monitoring? Where do you measure the wedge pressure in a patient undergoing intermittent mandatory ventilation who has both mandated and spontaneous breaths?

This text has special applicability to anesthesiologists, cardiothoracic and vascular surgeons, and other specialists involved in the monitoring of patients perioperatively. Several of the subsets of patients believed to benefit from the monitoring with right heart catheters are surgical and include patients who undergo peripheral vascular surgery and high-risk aortic surgery and patients for trauma.[3] Sections are devoted to intraoperative concerns, such as the recognition of changes in body position on the electrocardiogram (ECG), the effects of surgical retractors on the arterial pressure trace and the ECG, the effects of hypothermia on the ECG, and the recognition of developing cardiac tamponade. Most of the text, however, is also relevant to medical and cardiac patients who are critically ill without surgical problems.

In summary, this textbook is not only an atlas of pressure and electronic traces of patients with cardiovascular monitoring but also provides relevant physiologic and technical explanations of abnormal patterns. The figures are easy to visualize and generously labeled with explanatory legends. This useful combination of features will enhance the practice of those who care for patients in the perioperative period and of those who care for nonsurgical patients in the intensive care unit.

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Sudden cardiac death in the athlete

N. A. Mark Estes, Deeb Salem, Paul Wang; Armonk; 1998; Futura; 600 pages; $89.00.

Even the title catches our attention. Athletics are so high profile in our society that, unrelated to our medical activities, most will have some interest in this subject. Vascular surgeons are likely to be as, but perhaps no more, interested than other specialists. Edited and contributed to by thoughtful contributors to the field, the text is an informative compilation of the information available about this subject. The scope of the problem, information about how to identify those at risk, presumed mechanisms, and the understood role of treatment and potential approaches are outlined in a number of chapters.

The initial chapters that focus on mechanisms and identification of risk include most of the information available on those subjects. In subsequent chapters, it is often repeated. The chapter that addresses screening strategies is thoughtful and emphasizes the difficulty of defining an optimal approach on the basis of cost effectiveness alone. There are interesting subjects addressed, such as race and gender considerations, public access to defibrillation, care of the high profile athlete, the role of the sports medicine physician, legal considerations, and research imperatives.

In this text, a reader can learn about disease processes that have been implicated and related to sudden death in the athlete. The problem will be that when the reader gets there, it will be a wonderful discussion of the subject but will have little to do with sudden death in athletes. With so little being known, there is a general tendency to revert toward the mean—authors repeatedly say that until more is known, consensus conference opinions should be used to guide recommendations. This regression may provide an ultimate message that it is best to be cautious and restrictive. So little is known about the subject that the application of generalizations may be unfair to many. None of the authors address individuals' right to assess the risks on the basis of the information provided to them and then to make their own decisions about participation in sports.

The chapters are well written and well referenced. This text is a beginning. It should be the stimulus to a continued effort to better define the risk of cardiac death associated with athletics.

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